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- (71) Applicant (for all designated States except US):
BIOPHARM, VÝZKUMNÝ ÚSTAV BIOFARMACIE A VETERINÁRNÍ CH LÉČIV A.S. [CZ/CZ];
Pohoří-Chotouň, 254 49 Jílové u Prahy (CZ).
- (72) Inventors; and
- (75) Inventors/Applicants (for US only): TREFIL, Pavel [CZ/CZ]; K Netlukám 962, 104 00 Praha 10 (CZ). KOTRBOVA, Alena [CZ/CZ]; Peškova 729, 341 01 Horažďovice (CZ).
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(54) Title: A METHOD OF TRANSGENIC FOWL CONSTRUCTION

(57) Abstract: A method of transgenic fowl construction using germline spermatogonial cells for transfer of genetic information in fowl strain, which method is carried out so that the testicles only of an acceptor cock are irradiated with gamma rays up to the absorbed dose 8 Gy in one irradiation repeatedly and externally. Thereby, the original germline spermatogonial cells in the testicles of the acceptor cock are destroyed, which acceptor cock is then not able to produce sperms, whereby, the testicles structure, including the Sertoli's and Leydig's cells remains preserved for implantation of foreign germline spermatogonial cells of a donor cock. The new implanted germline spermatogonial cells then continue in production of sperms. The sperms are able to fertilize and that store all genetic information of the germline spermatogonial cells of the donor cock. The implantation is carried out after 50 days and more after the last irradiation. Production of transgenic fowl by this method is easy, because the spermatogonial cells of the donor cock can be transfected by the necessary genetic information and so after a successful implantation of said cells into the testicles of an acceptor cock a transgenic acceptor cock is so produced, which transgenic acceptor cock after insemination of hens by his ejaculate or by natural breeding will pass the genetic information of the donor to his progeny.

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